Vol 8 No 4 July 1997 Supplement

Epidemiology

The Ninth Annual Conference of the International Society for Environmental Epidemiology

INTERNATIONAL SOCIETY FOR ENVIRONMENTAL EPIDEMIOLOGY
ISEE
STUDYING HEALTH AND THE ENVIRONMENT

August 17-20, 1997
Academia Sinica International Center
Taipei, Taiwan, Republic of China

Williams & Wilkins
A WAVERLY COMPANY

Official Journal of the International Society for Environmental Epidemiology

Source: https://www.industrydocuments.ucsf.edu/docs/gnjj0001

The Ninth Annual Conference of the

International Society for Environmental Epidemiology

第九屆國際環境流行病學學會年會

中央研究院國際活動中心

August 17- 20, 1997

Academia Sinica International Center

Taipei, Taiwan, Republic of China

202

A PRELIMINARY STUDY OF CANCER INCIDENCE AMONG US FLIGHT ATTENDANTS

Wartenberg D, Stapleton C
EOHSI, RW Johnson Medical School, Piscataway, NJ, USA

Background—A recently published study of Finnish flight attendants reported excess cancer incidence, particularly breast and bone cancers. Radiation was cited as the primary risk factor although calculated radiation exposures were insufficient to explain the observed cancer excess. We found that flight attendants on international routes from the late 1950s to the early 1970s also had exposure to DDT pesticide.

Purpose—We surveyed members of an organization of retired US flight attendants to investigate their cancer incidence.

Methods—We calculated standardized incidence ratios (SIRs) for this historical cohort of 287 retired female flight attendants who had worked for a major US airline, using the US SEER cancer incidence data for comparison.

Results—An overall excess of cancer (SIR 1.4 (95% confidence interval of 0.9-1.7)) and a statistically significant excess of breast cancer (SIR of 2.0 (1.0 to 4.3)) were found among female flight attendants. The breast cancer risk was moderately associated with self-reported greater use of DDT pesticide inside the airplane cabin and weakly associated with more years worked, a proxy for radiation exposure. Other cancers showed significant excesses, but must be interpreted with caution due to the small number of observed cases.

Conclusion—Even though a small preliminary study, results from this study show that flight attendants are at increased risk for a number of cancers known to be associated with exposure to ionizing radiation and DDT pesticide. Further research is needed to adequately adjust for known confounding factors, such as lifestyle and reproductive history.

PM3006447894

Source: https://www.industrydocuments.ucsf.edu/docs/gnjj0001

BMJ 316: p. 1902, 20 June 1998

atric department of St Mary's Hospital to the end of December 1994. Twenty one children had been infected through vertical transmission. In most families the child was the first person to have HIV infection diagnosed, usually after becoming acutely ill and being admitted to the local district general hospital. Parents were devastated when they were told and still remembered it as a particularly distressing experience. They reported that HIV infection was rarely raised as a possible diagnosis before tests were carried out and that they were not at all prepared for a diagnosis of HIV infection.

Antenatal testing would increase the detection rate of HIV infection among pregnant women and reduce the number of children who were diagnosed when ill. It is particularly difficult for families to cope with the diagnosis of HIV infection in their child, and the implications this may have for other members of the family, at a time when their child is seriously ill.[2] Antenatal care provides an opportunity to offer testing before a crisis arises as part of a planned programme provided by professionals with suitable experience and the facilities for follow up support and advice.

Mary Boulton *Senior lecturer*
David Miller *Emeritus professor*
Eddy Beck *Senior lecturer*
Department of Epidemiology and Public Health, Imperial College School of Medicine, London W2 1PG

Sam Walters, *Senior lecturer*
Department of Paediatrics, Imperial College School of Medicine

1 Richardson MP, Sharland M. Late diagnosis of paediatric HIV infection in south west London. *BMJ* 1998;316:271-2. (24 January.)
2 Evans JA, Marriage SC, Walters MDS, Levin M. Unsuspected HIV infection presenting in the first year of life. *BMJ* 1995;310:1235-6.

Risk of breast cancer is also increased among retired US female airline cabin attendants

EDITOR—An excess incidence of breast cancer has been reported among Finnish[1] and Danish[2] airline cabin attendants (standardised incidence ratio 1.9 (95% confidence interval 1.2 to 2.2) and 1.6 (0.9 to 2.7) respectively). In a retrospective cohort survey of retired flight attendants from one US airline we also found an excess incidence of breast cancer (standardised incidence ratio = 2.0 (1.0 to 4.3)) (unpublished data).

Neither of the previous reports identified a cause for this excess incidence. One suggested that, on the basis of estimated exposures, radiation could account for an excess incidence of only 10%.[3] Another study said that radiation could be responsible for the excess by acting as a cancer promoter but provided little corroborating evidence.[3]

We suggest that exposure to dicophane (DDT), an organochlorine pesticide used to international flights DDT was to be sprayed throughout the aircraft from a single use, hand operated aerosol dispenser by a flight attendant after the doors were closed before takeoff, while air ventilation was limited. This may have resulted in substantial inhalation and dermal exposure to DDT for the person operating the aerosol.

Several population based studies have investigated DDT as a risk factor for breast cancer and obtained mixed results.[4] Using a case-cohort analysis we assessed whether flight attendants with high exposures to DDT might be more likely to have breast cancer. For comparison we assessed whether those who had made more flights in their career—a proxy for exposure to cosmic radiation—might be more likely to have breast cancer. We asked the flight attendants to tabulate by year the number of flights on which they flew and the number of flights on which they sprayed pesticides. Those with breast cancer were more likely to have had higher than median exposures to DDT than those without breast cancer (odds ratio 2.2 (0.4 to 10.9)). A much weaker and slightly protective association was found between breast cancer and number of flights flown (odds ratio 0.8 (0.2 to 3.5)). Although other risk factors for breast cancer were not adjusted for, the effect size of these confounders in other studies is insufficient to explain the excess we observed.

Our preliminary data are consistent with previously reported excess incidences of breast cancer among flight attendants. Furthermore, they support the hypothesis that exposure to DDT may be a risk factor for breast cancer. More carefully designed studies are needed to resolve these unusual and consistent findings.

Daniel Wartenberg *Associate professor*
Cecile Pryor Stapleton *Doctoral student*
Environmental Health Division, Environmental and Occupational Health Sciences Institute, Piscataway, NJ 08855-1179, USA

1 Pukkala E, Auvinen A, Wahlberg G. Incidence of cancer among Finnish airline cabin attendants, 1967-92. *BMJ* 1995;311:649-52.
2 Lynge E. Risk of breast cancer is also increased among Danish female airline cabin attendants. *BMJ* 1996;312:253.
3 Stewart T, Stewart N. Breast cancer in female flight attendants. *Lancet* 1995;346:1379.
4 Hunter DJ, Hankinson SE, Laden F, Colditz GA, Manson JAE, Willett WC, et al. Plasma organochlorine levels and the risk of breast cancer. *New Engl J Med* 1997;337:1253-8.

Intractable problems need long term solutions, not quick fixes

EDITOR—Sometimes it is difficult to be pleased about progress. The new green paper *Our Healthier Nation* represents progress. For the first time, a government has made an unequivocal statement about the importance of socioeconomic factors for health. Previous governments have been reluctant to acknowledge that poverty kills or that poor housing makes people ill, and as social exclusion—but the green paper also recognises that problems that have been part of the fabric of society for as long as health inequalities have been are unlikely to be amenable to short term solutions. *Our Healthier Nation* is therefore an important and honest step in the right direction.

In spite of this many public health practitioners experienced dismay on reading the green paper because it does not contain any targets for reducing inequalities in health. There are targets for reducing overall death rates from the "big killers" and exhortations that progress on these should not be achieved just by improving the health of the better off. There are, however, no targets for reducing the gap in mortality between rich and poor. Instead the government recommends that targets for reducing inequalities should be set at local level. Social inequalities are evident in local health statistics but, because of the smaller number of deaths involved, local statistics will be much less sensitive to small increases or decreases.

The absence of such targets raises concerns about the government's commitment to succeed. The previous government showed that national policy can impact on social inequalities by increasing them,[1] so there is every reason to suppose that this government's policies could be effective in reducing them. Do ministers not really believe that they will succeed or do they not really want to?

The elimination of health inequalities represents a major challenge and will not be achieved by a single government paper. It is likely, however, that the proposals in the green paper will begin to reverse the current trend. If they fail to do so or if they continue to drive it in the wrong direction it is important for everyone to know early on so that the proposals can be rethought. We need to believe that the government is committed to trying, not that it will necessarily succeed the first time. Setting targets for reducing inequalities in death rates and including them in the final white paper would ensure that confidence.

Sarah Stewart-Brown *Director*
Health Services Research Unit, Department of Public Health, Institute of Health Sciences, University of Oxford, Oxford OX3 7LF

Sian Griffiths *Director of public health and health policy*
Oxfordshire Health Authority, Oxford OX3 7LG

1 Wilkinson RG. *Unhealthy societies: the affliction of inequality.* London: Routledge, 1996.

Copper is unlikely to cause contact allergy

EDITOR—In their article on diagnosing allergy Rusznak and Davies give copper as a

PM3006447895

Source: https://www.industrydocuments.ucsf.edu/docs/gnjj0001